

# jean-françois pamb Brun

researcher | engineer | software developer

## about

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## languages

bilingual french/english

## programming

java, javascript  
python, numpy  
matlab, c, c++  
linux, xml, git  
html5, latex  
tensorflow

## standards

dicom, ihe, hl7  
jpeg 2000, jpip

## interests

medical imaging  
image compression  
deep learning  
rendering

† not a member of the OIQ  
‡ fast-track doctoral  
admission without obtaining  
a master's degree

## education

2011-2016	<b>Ph.D. in electrical engineering</b> <i>improving medical image compression and transmission</i>	École de technologie supérieure
2009-2010	<b>M.Sc. in electrical engineering (incomplete†)</b> <i>evaluation of the diagnostic quality of lossy compressed medical images</i>	École de technologie supérieure
2005-2009	<b>B.ing. in electrical engineering</b> <i>information technologies and telecommunication</i>	École de technologie supérieure

## experience

2017-	<b>software developer</b> <i>cloud-based diagnostic workstation with client-side MPR</i>	nucleus.io
2016 (06-12)	<b>postdoctoral fellow</b> <i>MR-TRUS fusion and segmentation using deep neural networks</i>	CHUM research centre
2016 (09-12)	<b>lecturer</b> <i>procedural programming (inf1005a)</i>	École Polytechnique de Montréal
2009-2014	<b>lecturer</b> <i>software development environment (ele116)</i> <i>image processing and analysis (ele747)</i>	École de technologie supérieure
2007-2014	<b>teaching assistants</b> <i>healthcare distributed systems (gts840)</i> <i>software development environment (ele116)</i> <i>image processing and analysis (ele747)</i>	École de technologie supérieure

## awards

2017	<b>NSERC post-doctoral scholarship</b>	90,000\$
2017	<b>FRQNT post-doctoral scholarship</b>	70,000\$
2016	<b>GRSTB postdoctoral fellowship</b>	18,000\$
2011	<b>NSERC doctoral Alexander-Graham-Bell scholarship</b>	105,000\$
2011	<b>ÉTS excellence graduate student scholarship</b>	60,000\$
2011	<b>FRQNT doctoral research scholarship</b>	60,000\$
2009	<b>FRQNT master's research scholarship</b>	30,000\$
2006	<b>NSERC undergraduate student research awards</b>	4,500\$

## committee and board memberships

2013-2016	<b>board member of an NPO</b> vice-president of services academic commission student representative disciplinary committee student representative	Association étudiante de l'ÉTS
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# publication

## articles in peer-reviewed journals

The utilization of MRI in the operating room

Ménard C , Pambrun J-F, Kadoury S

Brachytherapy. *Elsevier*, 2017

Computed Tomography Image Compressibility and Limitations of Compression Ratio-Based Guidelines

Pambrun J.F. , Noumeir R.

Journal of Digital Imaging. *Springer Science*, 2015

Teaching DICOM by Problem Solving.

Noumeir R. , Pambrun J.F.

Journal of Digital Imaging. *Springer Science*, 2012

Streaming of medical images using JPEG2000 interactive protocol

Pambrun J.F. , Noumeir R.

International Journal of Innovative Computing and Applications. 2012

Using JPEG 2000 Interactive Protocol to Stream a Large Image or a Large Image Set

Noumeir R. , Pambrun J.F.

Journal of Digital Imaging. *Springer Science*, 2010

## international peer-reviewed conferences/proceedings

Limitations of the SSIM quality metric in the context of diagnostic imaging

Pambrun J.F. , Noumeir R.

IEEE International Conference on Image Processing (ICIP), 2015

Compressibility variations of JPEG2000 compressed computed tomography

Pambrun J.F. , Noumeir R.

IEEE International Conference of the Engineering in Medicine and Biology Society (EMBC), 2013

Perceptual quantitative quality assessment of JPEG2000 compressed ct images with various slice thicknesses

Pambrun J.F. , Noumeir R.

IEEE International Conference on Multimedia and Expo, 2011

Interoperability testing of integration profiles based on HL7 standard version 3

Pambrun J.F. , Noumeir R.

IEEE International Conference on Information Technology and Applications in Biomedicine, 2010

Hands-on Approach for Teaching HL7 version 3

Noumeir R. , Pambrun J.F.

IEEE International Conference on Information Technology and Applications in Biomedicine, 2010

Streaming of Medical Images Using JPEG 2000 Interactive Protocol

Noumeir R. , Pambrun J.F.

IEEE International Conference on Systems, Signals and Image Processing. 2010

Interoperability Testing Software for Sharing Medical Documents and Images

Berube R. , Pambrun J.F, Noumeir R.

IEEE International Conference on Internet and Web Applications and Services. 2010

Images within the Electronic Health Record

Noumeir R. , Pambrun J.F.

IEEE International Conference on Image Processing. 2009